

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Edward J. SEPPI, et al.

Serial No.: 10/687,573

Filed: October 15, 2003

For: MULTI-ENERGY X-RAY SOURCE

Group Art Unit: 2882

Examiner: Jurie Yun

Confirmation No. 7129

**NOTICE OF APPEAL &
REQUEST FOR PRE-APPEAL BRIEF CONFERENCE**

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Advisory Action mailed April 3, 2009, Applicant herein submits a Notice of Appeal pursuant to 37 C.F.R. § 41.31(a), and respectfully requests a pre-appeal brief conference.

I. Claim Objection

Claim 64 stands objected to. Applicant believes that the amendments to claim 64 submitted previously have rendered the objection moot.

II. Claim rejections based on Besson and Keitaro

Claims 1-3, 6-13, 39-56, 59, 64, 66, and 67 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,950,493 (Besson) in view of JP 05-036368 (Keitaro).

Claims 1 and 39

Claim 1 recites a rotatable disk located within the cavity, the disk having a first target material and a second target material, wherein the *first target material corresponds with the first x-ray filtering material* of the radiation filter, and the *second target material corresponds with the second x-ray filtering material* of the radiation filter, *the second x-ray filtering material being different from the first x-ray filtering material* (Emphasis Added). Claim 39 recites that the first radiation filter is adapted to receive a first radiation generated using the first target material, and the second radiation filter is adapted to receive a second radiation generated using the second target material, the first and second radiation filters having different respective filtering materials.

Applicant agrees with the Examiner that Besson does not disclose or suggest the above limitations. According to the Office Action, the abstract and paragraphs 0001-0009 of Keitaro allegedly disclose the above limitations. However, Applicant respectfully submits that none of these cited passages discloses *different materials* for first and second x-ray filtering that correspond with respective first and second target materials. Keitaro is completely silent regarding first and second x-ray filtering *materials* being *different*.

According to pages 3 and 12 of the Office Action, the filters of Keitaro are allegedly “different” because they correspond to each cathode and material of the focus surfaces, citing to the abstract of Keitaro. As an initial matter, Applicant respectfully notes that the abstract actually states, “The x-ray having the desired ray quality can be obtained by providing a filter corresponding to each cathode and the material of the focus surfaces.” Thus, the abstract says nothing about two filter *materials* being *different*. Also, the disclosure of “a filter corresponding to each cathode and the material” means that there is a filter for each cathode and the focus surface material. There is nothing to suggest that the materials of the filters themselves are different.

Further, contrary to the suggestion in the Office Action that different filters are needed to produce different x-ray qualities, Applicant notes that different x-ray qualities may be accomplished in Keitaro by using a same filter material. This is because Keitaro discloses a first cathode-target pair (4, 1), and a second cathode-target pair (5, 2) for generating two different x-ray characteristics (i.e., one x-ray from elements 4+1, and another x-ray from elements 5+2). Thus, a filter material (f) may be used to provide two additional different x-ray characteristics —

i.e., elements 4+1+f, and elements 5+2+f. Therefore, even if Keitaro is concerned with producing different x-ray qualities, it does not mean that two different filter materials are disclosed.

Since both Besson and Keitaro do not disclose or suggest the above limitations, no combination of them can form the subject matter of claims 1 and 39. Therefore, the prima facie case of the § 103 rejection has not been established. For at least the foregoing reasons, claims 1 and 39, and their respective dependent claims, are believed allowable over Besson, Keitaro, and their combination.

Applicant respectfully notes that all of the above arguments have not been considered in the Advisory Action, and requests that they be considered.

Claims 43, 44, 59, and 64

Claim 43 recites that the first target material forms a *ring configuration*. Claim 44 recites that the first target material and the second target material are positioned *concentrically relative to each other*. Claims 59 and 64 recite that the first target material has *at least an arc or a partial circular shape*. According to pages 5 and 6 of the Office Action, Keitaro allegedly discloses the above limitations. However, Applicant respectfully submits that an alleged disclosure of the claim elements by a reference alone cannot establish a prima facie case of a § 103 rejection. Instead, there must be some motivation to combine the alleged disclosed elements with the primary reference (Besson). In this case, the Office Action has not provided any reason as to why one skilled in the art would be motivated to combine the alleged disclosed elements in Keitaro with Besson to form the subject matter of claims 43, 44, 59, and 64. For at least the foregoing reasons, Applicant respectfully submits that the prima facie case of the § 103 rejection has not been established, and requests that the § 103 rejection for at least claims 43, 44, 59, and 64 be withdrawn.

In addition, Applicant respectfully notes that Besson describes a specific multifaceted target anode 2608, which includes different target materials (e.g., 2702, 2704) arranged around a hub 2710 (figure 28A). Each of the target materials has a planar configuration (i.e., not a ring, arc, or partial circular shape), and the target materials are arranged side-by-side (i.e., not concentrically) to circumscribe the hub 2710 (figure 28A). The reason for such “multifaceted anode” is that such configuration allows an electron beam 2606 to be precisely maintained or

adjusted with respect to the angle of the electron beam striking the planar surfaces (see figures 28A-28C, and column 47, line 38 to column 48, line 13). Notably, if Keitaro's target structure were to be used in Besson's system, the rotation of the target structure would not allow the beam of Besson to hit different targets in the manner described in Besson, and the relative angle between the beam and the target surface will no longer be able to be precisely adjusted, thereby rendering Besson unsatisfactory for its intended purpose. "The proposed modification cannot render the prior art unsatisfactory for its intended purpose" (See MPEP 2143.01). Also, "The proposed modification cannot change the principle of operation of a reference" (MPEP § 2143.01). Since the evidence of record does not support the purported motivation to substitute Besson's multifaceted anode 2608 with Keitaro's target structure, Applicant requests that the § 103 rejection be withdrawn.

Applicant respectfully notes that all of the above arguments have not been considered in the Advisory Action, and requests that they be considered.

II. Claim rejections based on Besson and Albert

Claims 21-25, 27-34, and 65 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Besson in view of U.S. Patent No. 4,048,496 (Albert).

Claim 21 recites that the first *target material has at least an arc shape* or a partial circular shape. Besson does not disclose or suggest the above limitation, and is not relied upon for the disclosure of the above limitation. According to page 8 of the Office Action, Albert does not disclose the above limitation, but it would have been allegedly obvious to one of ordinary skill in the art to modify the target material of Albert to have at least an arc shape or a partial circular shape. As an initial matter, the examiner has not cited any teaching of the proposed modification, or any motivation to make the proposed modification. Moreover, Applicant respectfully notes that the target materials 54 of Albert have different chemical elements (column 6, lines 29-30), and that during use, an electron beam 23 is deflected to impinge upon a selected "one" of the targets 54 (column 6, lines 41-42). Notably, each of the target materials 54 has a square shape so that a large number of target materials 54 with different chemical elements can be placed next to each other in a circular pattern (see figure 1 and corresponding passage of Albert). If the targets 54 are all modified to have an arc shape as purported in the Office Action,

then all of the different targets 54 could not be arranged in the configuration as required in Albert. “The proposed modification cannot render the prior art unsatisfactory for its intended purpose” (See MPEP 2143.01).

Also, Applicant submits that the purported modification of the targets 54 to have a circular shape would result in the targets 54 being arranged in a concentric manner. However, Albert requires secondary targets 61 to be rotated into alignment with a selected one of the primary targets 54 (column 6, lines 65-67). If the targets 54 are arranged in a concentric manner, the secondary targets 61 would be incapable of being rotated into alignment with a selected one of the primary targets 54. “The proposed modification cannot render the prior art unsatisfactory for its intended purpose” (See MPEP 2143.01). Also, “The proposed modification cannot change the principle of operation of a reference” (MPEP § 2143.01).

Since the evidence of record does not support any purported motivation to modify Albert in the manner described in the Office Action, Applicant requests that the § 103 rejection for claim 21 and its dependent claims be withdrawn.

Again, Applicant respectfully notes that all of the above arguments have not been considered in the Advisory Action, and requests that they be considered.

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Respectfully submitted,

DATE: May 22, 2009

By: /Gerald Chan/
Gerald Chan
Registration No. 51,541

VISTA IP LAW GROUP, LLP
1885 Lundy Ave., Suite 108
San Jose, California 95131
Telephone: (408) 321-8663 (Ext. 203)
Facsimile: (408) 877-1662